

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



WATER USE PERMIT

PERMIT NO. 13676	TYPE §§ 11.121 & 11.085
Permittee: City of Corpus Christi	Address: P.O. Box 9277 Corpus Christi, Texas 78469
Filed: February 26, 2020	Granted:
Purpose: Municipal	Counties: Nueces, Kleberg, San Patricio, and Aransas
Watercourse: Tule Lake Channel (Corpus Christi Ship Channel), tributary of Corpus Christi Bay	Watershed: Nueces-Rio Grande and San Antonio-Nueces Coastal Basins, Nueces River Basin

WHEREAS, The City of Corpus Christi (Applicant) requests a water use permit to authorize the diversion and use of not to exceed 93,148 acre-feet of water per year, at a maximum diversion rate of 129 cfs (57,708 gpm), from a diversion reach on Tule Lake Channel (Corpus Christi Ship Channel), tributary of Corpus Christi Bay, Nueces-Rio Grande Coastal Basin in Nueces County for municipal purposes in Nueces, Kleberg, San Patricio and Aransas counties; and

WHEREAS, the proposed upper limit of the diversion reach is located at Latitude 27.812342° N, Longitude 97.414444° W; and

WHEREAS, the proposed lower limit of the diversion reach is located at Latitude 27.811553° N, Longitude 97.412778° W; and

WHEREAS, Applicant seeks an exempt interbasin transfer of 93,148 acre-feet of water to the portions of Nueces County within the Nueces River Basin and the San Antonio-Nueces Coastal Basin and to the portions of Nueces and San Patricio Counties in the San Antonio-Nueces Coastal Basin within the City's service area; and

WHEREAS, Applicant also seeks an exempt interbasin transfer of 2,999 acre-feet of water out of the authorized 93,148 acre-feet to Aransas County within the San Antonio-Nueces Coastal Basin; and

WHEREAS, the Texas Commission on Environmental Quality finds that jurisdiction over the application is established; and

WHEREAS, this permit, if granted, is subject to requirements and orders of the South Texas Watermaster; and

WHEREAS, the Executive Director recommends that special conditions be included in the permit; and

WHEREAS, the Texas Commission on Environmental Quality finds that the issuance of the permit is consistent with the goals and policies of the Texas Coastal Management Program (CMP); and

WHEREAS, the Commission has complied with the requirements of the Texas Water Code and Rules of the Texas Commission on Environmental Quality in issuing this permit;

NOW, THEREFORE, this permit, designated Water Use Permit No. 13676, is issued to The City of Corpus Christi subject to the following terms and conditions:

1. USE

- A. Permittee is authorized to divert and use not to exceed 93,148 acre-feet of water per year, from a diversion reach on Tule Lake Channel, Nueces-Rio Grande Coastal Basin for municipal purposes within its service area in Nueces, Kleberg, San Patricio and Aransas counties.
- B. Permittee is authorized an exempt interbasin transfer of all its authorized water to the portions of Nueces County within in the Nueces River Basin and the San Antonio-Nueces Coastal Basin and to the portions of Nueces and San Patricio Counties in the San Antonio-Nueces Coastal Basin within the City's service area.
- C. Permittee is authorized an exempt interbasin transfer of 2,999 acre-foot of its authorized 93,148 acre-feet of water to Aransas County within the San Antonio-Nueces Coastal Basin.

2. DIVERSION

- A. Permittee is authorized to divert from a reach along Tule Lake Channel (Corpus Christi Ship Channel), Nueces-Rio Grande Coastal Basin in Nueces County, defined as follows:
 1. Upper limit of the diversion reach is located at Latitude 27.812342° N, Longitude 97.414444° W.
 2. Lower limit of the diversion reach is located at Latitude 27.811553° N, Longitude 97.412778° W.
- B. At a maximum combined diversion rate of 129 cfs (57,708 gpm).

3. PRIORITY

The time priority of this water right is February 26, 2020.

4. CONSERVATION

Permittee shall implement water conservation plans that provide for the utilization of those practices, techniques, and technologies that reduce or maintain the consumption of water, prevent or reduce the loss or waste of water, maintain or improve the efficiency in the use of water, increase the recycling and reuse of water, and prevent the pollution of water, so that a water supply is made available for future or alternative uses. Such plans shall include a requirement that every water supply contract entered into on or after the effective date of this permit, including any contract extension or renewal, that each successive wholesale customer develop and implement conservation measures. If the customer intends to resell the water, then the contract for resale of the water shall have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures.

5. SPECIAL CONDITIONS

- A. The special conditions in this permit are subject to adjustment by the commission if the commission determines, through an expedited public review process, that such adjustment is appropriate to achieve compliance with applicable environmental flow standards adopted pursuant to Texas Water Code § 11.1471. Any adjustment shall be made in accordance with the provisions of Texas Water Code § 11.1471(e-1).
- B. Permittee shall implement reasonable measures in order to reduce impacts to aquatic resources due to entrainment or impingement. Such measures shall include, but shall not be limited to, the installation of screens at the diversion structure.
- C. Permittee shall install and maintain a measuring device which accounts for, within 5% accuracy, the quantity of water diverted from the segment authorized above in Paragraph 2. DIVERSION and maintain measurement records.
- D. Permittee shall allow representatives of the South Texas Watermaster reasonable access to the property to inspect the measuring device and records.
- E. Permittee shall contact the South Texas Watermaster prior to diversion of water authorized by this permit.

This permit is issued subject to all superior and senior water rights in the Nueces-Rio Grande Coastal Basin.

This permit is subject to the requirements and orders of the South Texas Watermaster.

Permittee agrees to be bound by the terms, conditions and provisions contained herein and such agreement is a condition precedent to the granting of this permit.

All other matters requested in the application which are not specifically granted by this permit are denied.

This permit is issued subject to the Rules of the Texas Commission on Environmental Quality and to the right of continuing supervision of state water resources exercised by the Commission.

For the Commission

Date Issued:

DRAFT


Texas Commission on Environmental Quality


INTEROFFICE MEMORANDUM

To: Sarah Henderson, Project Manager
Water Rights Permitting Team


Date: June 26, 2020

Through: Jason Godeaux, Team Leader
Resource Protection Team

 Jennifer Allis, Senior Water Conservation Specialist
Resource Protection Team

 Trent Jennings, Water Conservation Specialist
Resource Protection Team

From: Trent Jennings, Water Conservation Specialist
Resource Protection Team



Subject: City of Corpus Christi
WRPERM 13676
CN600131858
Tule Lake Channel (Corpus Christi Ship Channel), Nueces-Rio Grande
Coastal Basin
Nueces County

APPLICATION SUMMARY

The City of Corpus Christi (City) requests a water use permit to divert 93,148 acre-feet of water per year from a diversion reach on Tule Lake Channel (Corpus Christi Ship Channel), Nueces-Rio Grande Coastal Basin, at a maximum diversion rate of 129 cfs (57,708 gpm), for municipal purposes in Nueces, Kleberg, San Patricio, and Aransas counties.

The City requests an exempt interbasin transfer of 93,148 acre-feet of water to the portions of Nueces County in the Nueces River Basin and the San Antonio-Nueces Coastal Basin and to the portions of Nueces and San Patricio counties in the San Antonio-Nueces Coastal Basin within the City's service area. The City also requests an exempt interbasin transfer of 2,999 acre-feet of water to Aransas County in the San Antonio-Nueces Coastal Basin.

WATER CONSERVATION REVIEW

Pursuant to Title 30 Texas Administrative Code (TAC) §295.9(1), an application requesting to appropriate or to use water for municipal purposes requires the submittal of a water conservation plan and a drought contingency plan.

The City submitted a 2019 water conservation plan and drought contingency plan for municipal use with the application.

Resource Protection staff reviewed the water conservation and drought contingency plans and found that the plans meet the requirements in 30 TAC Chapter 288.

Additionally, the City is required to provide evidence that the amount of water appropriated will be beneficially used, i.e., effectively managed and not wasted pursuant to Texas Water Code (TWC), §11.134(b)(3)(A). Also, the City must provide evidence that reasonable diligence will be used to avoid waste and achieve water conservation pursuant to TWC §11.134(b)(4). To provide that evidence, the City must submit a water conservation plan in accordance with 30 TAC Chapter 288. In applications where a new appropriation of water is requested, the review includes an analysis of whether the requested appropriation is reasonable and necessary for the proposed uses in accordance with TWC §11.134 and 30 TAC §297.50.

The purpose of this review is to:

- (1) determine whether reasonable water conservation goals have been set;
- (2) determine whether the proposed strategies can achieve the stated goals;
- (3) determine whether there is a substantiated need for the water and whether the amount to be appropriated is reasonable for the proposed use; and
- (4) determine whether the water conservation plan addresses a water supply need in a manner that is consistent with the state water plan and the relevant approved regional water plan.

If these criteria are met, then Resource Protection staff considers this sufficient evidence to conclude that the City will avoid waste and achieve water conservation. This review forms a basis for permit conditions and limitations as provided by TWC §11.134.

Water Conservation Goals and Strategies

As a retail and wholesale water supplier, the City submitted a water conservation plan and a drought contingency plan for municipal use.

The City's 2019 Water Conservation Plan establishes goals for total per capita usage and residential per capita usage.

- The 5-year goal for total per capita consumption is 195 gallons per capita per day (gpcd) by 2024, and the 10-year goal is 184 gpcd by 2029.
- The 5-year goal for residential per capita consumption is 60 gpcd by 2024, and the 10-year goal is 56 gpcd by 2029.
- These goals represent a 5.64 percent reduction in total per capita water use and a 6.66 percent reduction in residential per capita water use by 2029.

The water conservation plan also discusses several programs that the City has established to help achieve the stated goals:

- Public Awareness and Education Programs, including educating youth about water resources and the importance of conservation;
- Adoption of conservation-oriented water rate structures for residential and commercial customers;
- Universal metering and a meter repair and replacement program;
- Water conservation staff who coordinate and implement water conservation for the city and its service area;
- Record Management system to classify customers by sector for billing purposes;
- Implementation of permanent conservation measures for irrigating parks and golf courses; and
- Annual water system audits to identify areas of water loss.

Resource Protection staff determined that the overall water conservation strategies provided in the City's water conservation plan are reasonable and can help achieve and maintain the stated goals.

Requirements for Water Right Application under 30 TAC §288.7

Under 30 TAC §288.7, a water conservation plan submitted with a water right application for a new or additional appropriation of water must include data and information which:

- (1) supports the applicant's proposed use of water with consideration of the water conservation goals of the water conservation plan;
- (2) evaluates conservation as an alternative to the proposed appropriation; and
- (3) evaluates any other feasible alternative to new water development including, but not limited to, waste prevention, recycling and reuse, water transfer and marketing, regionalization, and optimum water management practices and procedures.

As part of their application, the City submitted a supplement to their Water Conservation Plan to address these requirements.

Consideration of Water Conservation Goals

The City proposes to meet regional water supply needs for municipal purposes, including retail sales to residential, commercial, manufacturing and institutional customers in Aransas, Kleberg, Nueces and San Patricio counties. Water needs were identified through the state water planning process, which considers reduced per capita water use that is consistent with the City's water conservation plan.

Conservation as an Alternative to the Proposed Appropriation

As part of the regional water planning process, the planning groups are required to perform a comprehensive analysis of potentially feasible water management strategies, including consideration of water conservation. The proposed appropriation supports a recommended strategy in the 2016 Region N Plan and the 2017 State Water Plan. The proposed project also promotes regionalization and

serves as an alternative to existing fresh water supplies that further promotes conservation of that water supplies.

Feasible Alternatives to New Water Development

The amount of appropriation of water proposed is consistent with the 2016 Region N Plan, however the 2016 Region N Plan identified potentially feasible alternatives to meet the needs in Nueces County which include:

- GBRA Lower Basin Off- Channel Reservoir
- Additional Reuse – Corpus Christi
- Manufacturing water conservation
- O.N. Stevens Water Treatment Plant improvements

The 2016 Region N Plan also identified potentially feasible alternatives to meet the needs in San Patricio County which include:

- GBRA Lower Basin Off- Channel Reservoir
- Manufacturing water conservation
- Portland Reuse Pipeline
- SPMWD Industrial Water Treatment Plant improvements

Desalination is the only recommended strategy that has sufficient quantity to meet the projected water needs in these counties.

Water Need

The City is the major retail and wholesale water provider in the Coastal Bend Region. The City submitted a Utility Profile which includes population data from the Draft 2021 Region N Water Plan, indicating that the City's population served by retail water service is expected to increase from 332,709 in 2020 to 400,094 in 2060. Also, projected population served by wholesale water service is expected to increase from 522,572 in 2020 to 621,759 in 2060.

The Coastal Bend Region has four current regional wholesale water providers: the City of Corpus Christi; San Patricio Municipal Water District (SPMWD); South Texas Water Authority (STWA); and Nueces County Water Control and Improvement District No.3 (Nueces County WCID 3). The City of Corpus Christi, the largest of the four, sells water to two of the other regional water providers — SPMWD and STWA. SPMWD and STWA purchase 100 percent of their water from the City of Corpus Christi. The City of Corpus Christi is contracted to provide up to 73,800 ac-ft/year to SPMWD (46,800 ac-ft/year of raw water and 27,000 ac-ft/year of treated water supplies after Year 2020) and meet demands of STWA and their customers.

The City is capable of providing retail water to its customers using current supplies, especially utilizing additional municipal water conservation measures; however, potential water management strategies will be needed to meet long-term needs for wholesale providers.

The City and its wholesale customers will experience shortages beginning in 2030 and is due to large manufacturing demands in Nueces and San Patricio counties. According to the Draft 2021 Region N Water Plan, by 2070, the shortage will be approximately 55,000 acre-feet per year, which include both municipal retail and wholesale, as well as steam-electric and manufacturing demands.

Consistency with State and Regional Water Plans

Seawater desalination is included as a water management strategy for the City in the 2016 Region N Water Plan and in the Draft 2021 Region N Water Plan. This strategy will increase water supplies available for both the City's municipal retail and wholesale customers, as well as steam-electric, and manufacturing in Region N if approved.

As such, the application is consistent with the 2016 Region N Water Plan and the 2017 State Water Plan.

RECOMMENDATIONS

Based on the analysis, Resource Protection staff has evaluated the application and determined that it meets the review requirements.

The following water conservation language should be included in the permit, if granted:

Permittee shall implement water conservation plans that provide for the utilization of those practices, techniques, and technologies that reduce or maintain the consumption of water, prevent or reduce the loss or waste of water, maintain or improve the efficiency in the use of water, increase the recycling and reuse of water, and prevent the pollution of water, so that a water supply is made available for future or alternative uses. Such plans shall include a requirement that in every water supply contract entered into on or after the effective date of this permit, including any contract extension or renewal, that each successive wholesale customer develop and implement conservation measures. If the customer intends to resell the water, then the contract for resale of the water shall have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures.

Surface Water, Subchapter F). The adopted rules include freshwater inflow standards for the Nueces Bay and Delta. This application is located in Corpus Christi Bay which is downstream of the location where the freshwater inflow standards apply. Therefore, this application does not impair freshwater inflows to Nueces Bay and Delta. Because staff found that the application did not impair the freshwater inflow regime, which by rule is adequate to support a sound ecological environment, and because one of the purposes of the adopted rules is to protect coastal natural resources the application is consistent with any applicable Coastal Management Program (CMP) goals and policies.

Reviews of requests for interbasin transfers are conducted in accordance with §11.085 of the Texas Water Code (TWC) and TCEQ's rules regarding IBTs. The City's request for an interbasin transfer is exempt under §§11.085 (v)(1) and (v)(4). Therefore, staff did not perform a review under TWC §11.085.

Regarding water availability, no analysis is needed because the application is located in Corpus Christi Bay where the water is saline

In addition, the application is subject to the requirements and orders of the South Texas Watermaster. The Watermaster actively manages water rights on a daily basis and protects senior water rights in times of shortage.

Conclusion

Hydrology Staff can support granting the application as requested.

Note that the application is subject to the requirements and orders of the South Texas Watermaster.




Siavash Bassam, Hydrologist

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Sarah Henderson, Project Manager Date: June 26, 2020
Water Rights Permitting Team

Through: Jason Godeaux, Team Leader
 Resource Protection Team

From: George Gable, Aquatic Scientist
GMGIV Resource Protection Team

Subject: City of Corpus Christi
WRPERM 13676
CN600131858
Tule Lake Channel (Corpus Christi Ship Channel), Nueces-Rio Grande
Coastal Basin
Nueces County

Environmental reviews of water right applications are conducted in accordance with applicable provisions of the Texas Water Code (TWC) and the administrative rules of the Texas Commission on Environmental Quality (TCEQ). The provisions applicable to environmental reviews can vary according to the type and the location of the authorization requested.

APPLICATION SUMMARY

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The City requests an exempt interbasin transfer of 93,148 acre-feet of water to the portions of Nueces County in the Nueces River Basin and the San Antonio-Nueces Coastal Basin and to the portions of Nueces and San Patricio Counties in the San Antonio-Nueces Coastal Basin within the City's service area. The City also requests an exempt interbasin transfer of 2,999 acre-feet of water to Aransas county in the San Antonio-Nueces Coastal Basin.

ENVIRONMENTAL ANALYSIS

On February 12, 2014, the TCEQ adopted environmental flow standards for the Nueces River and its associated tributaries, tributaries in the Nueces-Rio Grande

Coastal Basin, and Corpus Christi and Baffin Bays (Title 30 Texas Administrative Code (TAC) Chapter 298 Subchapter F). These environmental flow standards are considered adequate to support a sound ecological environment (Title 30 TAC §298.410). This review is conducted in accordance with §11.147(e-3) of the TWC and Title 30 TAC Chapter 298 Subchapter F (Nueces River and Corpus Christi and Baffin Bays). The City's proposed diversion point is located on Corpus Christi Bay.

RECOMMENDATIONS

Resource Protection staff have no recommendations regarding this proposed permit, if granted.